

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: HAIRFIELD	)	
	)	
SERIAL NO.: 10/782,638	)	ART UNIT: 3762
	)	
FILED: FEBRUARY 19, 2004	)	EXAMINER: FLORY,
	)	CHRISTOPHER A.
FOR: Water Electrode	)	
	)	CONF. NO.: 4127

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

## DECLARATION UNDER 37 CFR § 1.131/1.132

Dear Sir:

The undersigned inventor of the referenced application hereby attests as follows:

1. I, the undersigned Wade E. Hairfield, am the correct inventor of the presently claimed subject matter of the referenced application.
2. Certain claims of my patent application stand rejected under 35 U.S.C. 102(e) as anticipated by Tucek (U.S. Patent Publication 2004/0138708, hereinafter referred to as Tucek).
3. The filing date of Tucek is January 15, 2003. No priority to a previous application is claimed. Accordingly, the effective date of Tucek as a 102(e) reference is January 15, 2003.
4. I reduced the invention claimed in the pending application to practice in August 2002. The actual reduction to practice included the construction of a working prototype.

5. August 2002 is prior to the effective date of the Tucek reference.
6. The actual reduction to practice in August 2002 occurred in the United States of America.
7. Attached to this Declaration is the following evidence of the actual reduction to practice in August of 2002. The attached records include:
- a. A photograph of the prototype device;
  - b. Various design sketches and schematic diagrams prepared prior to or in August 2002;
  - c. A part and material list and task list prepared for the completion of a working prototype in August 2002.
8. All statements made herein of the undersigned's own knowledge are true, all statements made herein on information and belief are believed to be true, and all statements made herein are made with the knowledge that whoever, in any manner within the jurisdiction of the Patent and Trademark Office, knowingly and willfully falsifies, conceals or covers up by any trick, scheme or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be subject to the penalties set forth under 18 USC Section 1001, and that violations of this paragraph may jeopardize the validity or enforceability of any patent or certificate resulting therefrom.

Respectfully submitted,

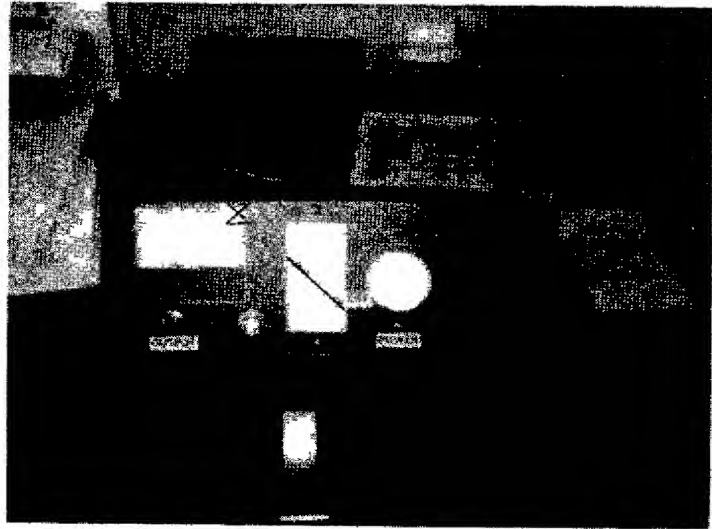
JAN 29TH, 2007  
Date

Wade E. Hairfield  
Wade E. Hairfield

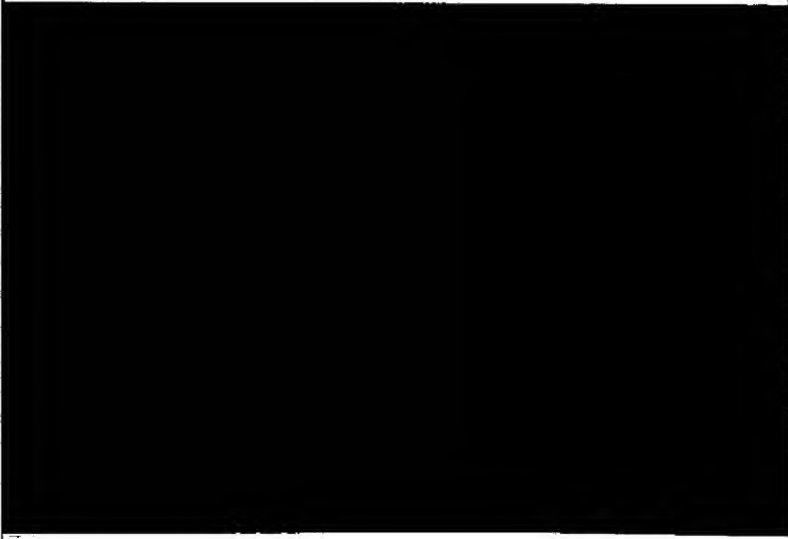
S:\Client\Folders\Hairfield, Wade\Declaration.DOC

**Attachment a. to Declaration**

**A photograph of the prototype device**

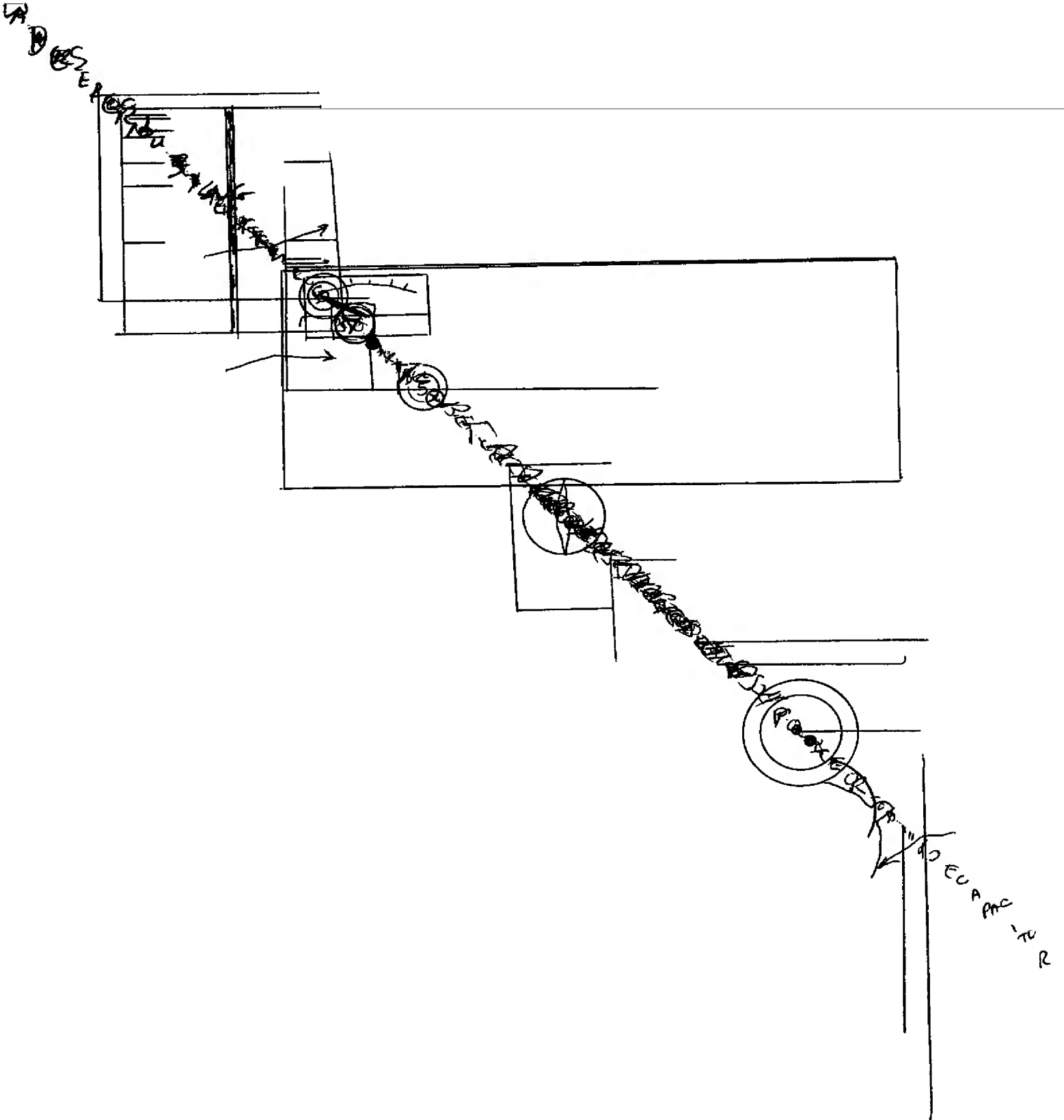


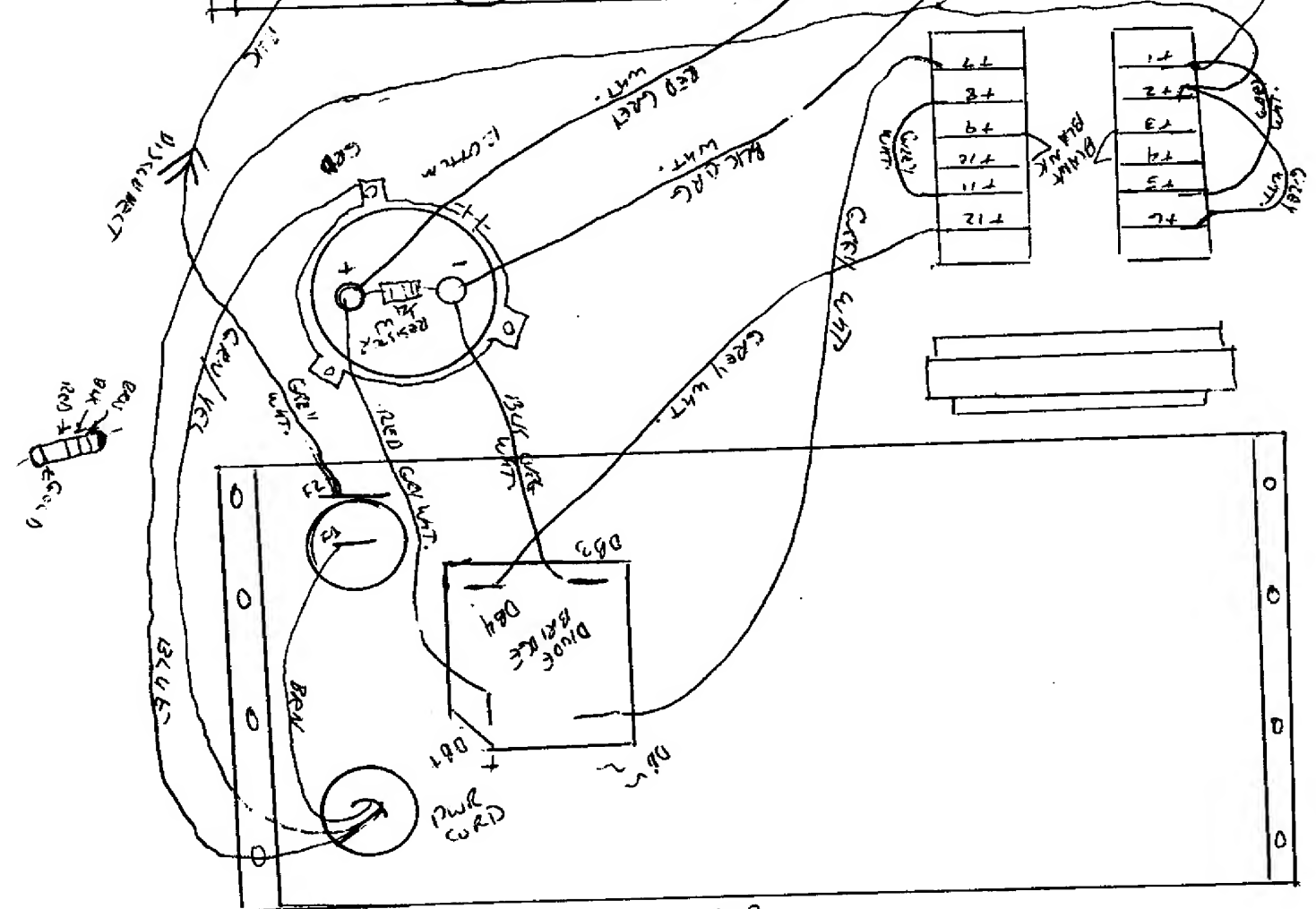
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**Attachment b. to Declaration**

**Various design sketches and schematic diagrams  
prepared prior to or in August 2002**





to P  
BACK PNL. (INSIDE)



CORD BRN → PINK F1  
 CORD GRN/YEL → GRN #2 RING (RED TERM)  
 CORD BLUE → T2  $\xrightarrow[\text{WHT.}]{\text{GRY}} \text{TC}$

F2  $\xrightarrow[\text{WHT.}]{\text{GRY}}$   $\xrightarrow[\text{BLK.}]{\text{DISCONNECT}}$  W2

C-01  $\xrightarrow{\text{BLK.}}$  REG 2

DB+  $\xrightarrow[\text{WHT.}]{\text{RED GRAY}} \text{CAP + PGS.}$

DB  $\xrightarrow[\text{WHT.}]{\text{GRY}} \text{BLUE T7}$

DB 3  $\xrightarrow[\text{WHT.}]{\text{BLK/ORG.}} \text{CAP - NEG. BLUE RING.}$

DB 4  $\xrightarrow[\text{WHT.}]{\text{GRY}} \text{BLUE T12}$

CAP + AS  $\xrightarrow[\text{WHT.}]{\text{RED GRAY}} \text{PINK CB2}$

CAP - NEG BLUE RING  $\xrightarrow[\text{WHT.}]{\text{BLK ORG.}}$   $\xrightarrow[\text{SOLDER.}]{\text{F-DEK}} \text{CON 2} \xleftarrow[\text{SOLDER.}]{\text{ORG.}} \text{LED.}$

LED  $\xrightarrow{\text{ORG.}}$   $\xrightarrow[\text{WHT.}]{\text{RED GRAY}} \text{CON 1} \xrightarrow[\text{WHT.}]{\text{RED GRAY}} \text{PINK M1}$

M2  $\xrightarrow[\text{WHT.}]{\text{RED GRAY}} \text{PINK CB1}$

REG 1  $\xrightarrow{\text{WHT.}}$   $\xrightarrow[\text{WHT.}]{\text{BLUE}} \text{T1} \xrightarrow[\text{WHT.}]{\text{GRY}} \text{T5}$

T8  $\xrightarrow[\text{WHT.}]{\text{GRY}} \text{PINK T11}$

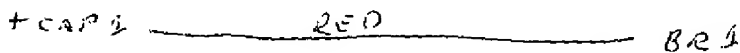
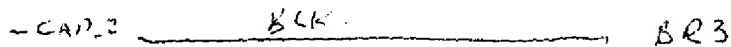
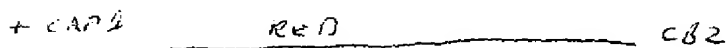
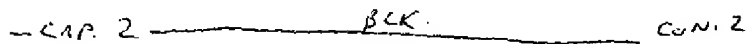
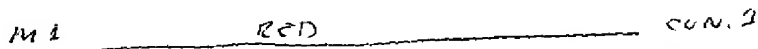
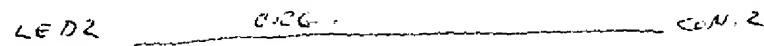
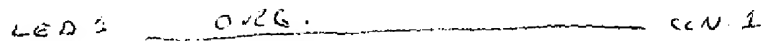
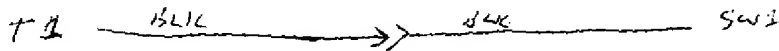
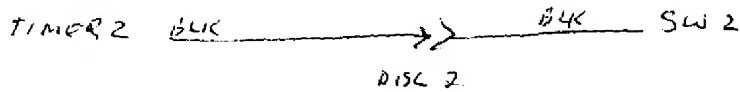
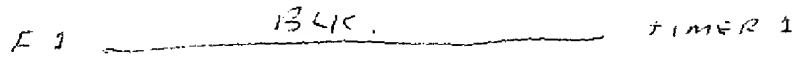
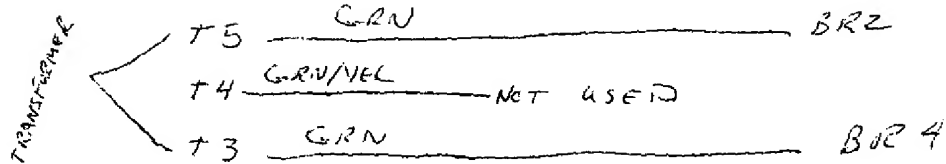
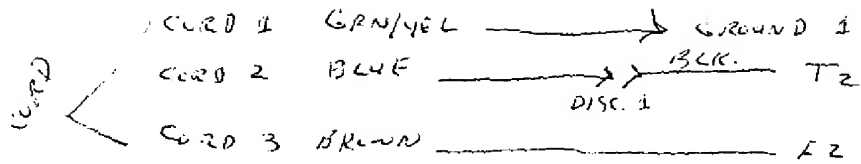
16 GAGE DISC.

BLUE PUSH ON  
| | | |

PINK PUSH ON  
| | | | | | | | | |

#2 RING (RED) TER

BLUE RING TER  
| | | |



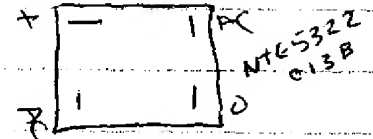
**Attachment c. to Declaration**

**A part and material list and task list prepared for the  
completion of a working prototype in August 2002**

# DESIGN NOTES & ASSY. PROC. AUG 2002

## WIRE CHART

G1 → C1 <sup>UN</sup>	RED	RING TERM	SOLDER/SLV.	TERMINAL 90°C
G2 → CB1	RED	RING TERM	PUSH-ON.	
L2 → CB1	RED	PUSH-ON	SOLD/SLV.	
L1 → CON.GR.	BLK.	SOLD/SLV.	RING TERM.	
CONV. CGR → DISCON. 1	BLK.	IVG TERM	DISCONNECT.	
DISCON1 → CAP "NEG."	BLK.	RING TERM		
CB2 → CAP "POS."	RED	RING TERM		
CAP "POS" → DB+	RED	PUSH-ON.		
CAP "NEG" → CBO	BLK.	PUSH-ON.		
DB "AC" → T1	RED.	" "		
DB "AC" OPS. SIDE → T6	BLK.	" "		
REO 1 → PW 1	BLK. SINGLE STRAND.	STRIP ONCL.		
PW 2 → DISCONN 2	BLK. SINGLE STRAND	DISCONN. PUSH-ON.		
DISCONN 2 → PWORD	BRN.	DISCONN. PUSH-ON.		
F1 → REO 2	BLK	PUSH-ON - STRIP.		
F2 → T8	BLK.	PUSH-ON.		
F8 → F12	BLK.	PUSH-ON		
F3 → PWWORD	BLUE	PUSH-ON.		
F4 → T7	RED	PUSH-ON		
T7 → T11	RED	PUSH-ON		
PWORD GRN/YEL → TGRD.		RING-TERM.		
T2 → T5	BLK.	PUSH-ONS (2)		



GRAINGER

3900 GREENBRIAR DR. STAFFORD

281 240-444

~~MAGNETEK INC.~~

2100 BERING DR. HOUSTON

281 344-0240

POWER REPS INC.

10701 CLAYBORNE DR. STAFFORD 281 494-2187

AV ELECTRONICS

6186 H-G N

281 856 2188

FORCE ELECTRONICS

10803 KINGHURST

281 561-8641

FUTURE ELECTRONICS

10333 RICHMOND AVE.

713 785-1155

Salv 1-888-880  
3449

~~NEWARK ELECTRONICS~~

~~8181 COMMERCE PARK HOUSTON~~

~~713 270-4800~~

FAX.  
BOM

514 428-7523

ATTN: RACHEL

SOURCE BOOK

10/10/10

10/10/10

FINISH ASSY DRAWINGS / WIRE LIST / GOM.  
TAKE PICTURES

I-D. ON/OFF SW. & CAP. & C/B.  
FIND

C/B ID

FUSES & HOLDERS ID

XFMR. TIES STRAPPING-

INPUT  
110 → 120 VAC

OUTPUT  
5 AMP ADJ. DN. TO 1 AMP.

1 CASE

1 AMP METER

1 CIRCUIT BRKR.

1 LED (GRN) DIODE

1 PWR. CORD.

1 TRANSFORMER

1 DIODE BRIDGE

1 22,000  $\mu$ F CAPACITOR & BRKT.

RED WIRE

BLK. WIRE

2 FUSE HOLDERS (GOT ONE)

2 4A FUSES AGC 250 V

1 PWR CORD BUCKHEAD PLASTIC FITTING.

1 DC CONN. OUTLET JACK.

✓ 1 TIMER

✓ 1 ON/OFF SW. (FAN etc)

1 DISCONNECT TERMINALS.

MANY INSULATED PUSH-ON TERMINALS.

✓ CB PLATE



... SCREW INSULATOR Eagle plastic mouse<sup>RT</sup> 56-04006

43-8902

... SPACER 8<sup>3"</sup> STD Eagle plastic mouse<sup>RT</sup> 561-KSP172

36-035

... 4-40 LOCK NUT NYLON Eagle plastic mouse<sup>RT</sup> 561-H446

54-2302

... STRAIN RELIEF (ROUND WIRE) DIGI-KEY P/N RP466-ND

... MOUNT CLIP 2" STAB DIGI-KEY P10103-ND

... BOX INSTRUMENT 8X8X4 DIGI-KEY HM339 (OLD STYLE BUC)

... CAPACITOR 220004F 40V COMPUTER GRADE DIGI-KEY P/N P10078

25V 04ACRG HOLDERS

56-012

... LAMP HOLDER mouse<sup>RT</sup> 35L\$284

02-20481

... GEN RND. LAMP HOLDER mouse<sup>RT</sup> 35LTX2

... FUSE HOLDER  $\frac{1}{4}$ " QUKHT84 DIGI-KEY<sup>RT</sup> 283-2347

... CORD 18 AWG 3COND 75" BLACK SGT DIGI-KEY<sup>RT</sup> Q106

... RECTIFIER BRIDGE 12A 100V GBPC DIGI-KEY<sup>RT</sup> GBPC1201

... W58 SERIES CIRCUIT BREAKER SA DIGI-KEY<sup>RT</sup> PB197ND